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RESEARCH PAPER

Architecture

Identification and Explanation of Life Factors in Traditional Houses in Yazd; Based on Grounded Theory

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Abstract

Human always tries to achieve a sense of vitality, and wants a lively environment; therefore, recognizing factors in the architecture that increases the quality of life is important. Based on the importance of this issue, this article aims to answer this question "What are the upgrading indicators of the concept of living in traditional homes (here are the traditional Yazd houses)? And identify the life indicators and evaluating them in architecture. In this way, by relying on a method of grounded theory, the researcher conducted semi-structured and in-depth interviews with 18 present perceivers in eight sorts of traditional houses in Yazd. These interviews were completed using sketches, photographs, and personal observations. Participants were selected from among the people who could answer more accurate questions. To increase validity, the findings were evaluated with other related studies. Findings show that nine main factors in traditional houses increase life quality. These factors include: the sociability space, the living and dynamic organization or hidden order Without extra unity, the possibility of continuous interaction with nature (sky, water, tree, open space and natural light), the emphasis on diversity, the perception of time, the quality of being dynamic and active, the expansiveness of space along with the increase Transparency of space, and the Mental memories and increase the belonging sense.

Keywords: *Life, Life factors, Architecture, Traditional houses, Yazd.*

1. INTRODUCTION

Architecture can create different feelings in its inhabitants and one of those feelings is the sense of life. Nowadays, there is this saying everywhere that, we want to build cities and buildings which play an effective role in preserving life. Unfortunately, in the contemporary period, with the dominance of the quantitative point of view regarding human desires, human life has been degraded to the level of mere material life and has deprived the living space of the people of a sense of life and vitality. However, in traditional societies, especially in traditional Iranian architecture, it was trying to build a building that would be life-giving for human life [1]. According to Kalb [2], generally, traditional and fine art designs look alive, whereas contemporary buildings and urban spaces generally lack this characteristic. On the other hand, in many studies, although they strived to evaluate diverse aspects of traditional houses [3], or the meaning of life in different fields, the life factor and its features in traditional house have not been specifically investigated, and they were merely limited to more descriptive and individual information. Therefore, given the importance of upgrading the lively and life-giving structure of the environment, this article tries to answer this question "What are the upgrading indicators of the concept of living in traditional homes (here are the traditional Yazd houses)?, In other words, explain the factors of living standards of traditional patterns that can increase life quality in architecture. The reason for choosing the traditional homes is that these homes have more value than contemporary ones, and because of dissatisfaction with contemporary homes [4], they cannot be chosen as a suitable ground for identifying living standards. Based on this aim, by selecting the traditional houses in Yazd as an example, the researcher tried to evaluate their lively and life-giving structure by relying on the present perceivers' ideas to be able to provide the criteria for enlivening the environment. The present study, which is based on the grounded theory method, does not want to measure the predetermined hypotheses, but rather, because of its qualitative nature, it aims to describe the conditions of a particular texture, answer 'How' questions, and describe the process of intervention in realities. The results can use as some

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factors for increasing the quality of life-related to architecture.

2. LITERATURE REVIEW

Based on the importance of the concept of life, ancient philosophers like Aristotle, other famous thinkers such as Erwin Schrödinger [5], Lynn &Dorion [6], have provided various definitions of the concept of life, For example, Erwin Schrödinger has worked in the field of quantum theory. In the book "What is Life?" with an emphasis on genetic problems, he measures the phenomenon of life from the physical point of view. He goes beyond physical things and considers the meaning of life from the philosophical aspects of science, the ancient philosophical concepts and oriental concepts, the religion, and ethics [7]. Schrödinger focuses on an important question and that is how can we calculate the events in space and time, which are in the special range of a living organism, by the means of physics and chemistry? [6] The discovery of Nano-particles and more extensive studies in the 21st century provided different definitions of life. In this regard, Mark Bedau and Carol Cleland [8], in the book "The Nature of Life" collected original historical and contemporary sources in order to discover a wide range of issues related to the nature of life and, in addition to the philosophical view, evaluated the nature of life from the scientific point of view. In addition to the existence of life in architecture, the explanation of its criteria in the habitat of humans has been among the most important issues which have been discussed by prominent thinkers over time. The research of people such as Alexander [9], Nordberg Schulz [10], and Gruber [11] is among the most prominent examples of the work in this area. In the aftermath of the critique of modern architecture, Alexander proposed the phenomenon of life and got certain results with a completely different method and approach which were similar to the available solutions in traditional and native architecture. He is not a traditional thinker; however, during his studies for the improvement of the quality of architecture, he recognizes traditional forms of buildings as superior to contemporary architecture and believes that the concept of life is more evident in this architecture [2]. In "Book of A Timeless Way of Building" [12], and then in four volumes of the book "The Nature of Order [9, 13], he examined life in terms of meaning and events in place and time and, in a phenomenological approach, presented principles for increasing the living structure in the environment which makes it possible for an environment to have the capacity for increasing the amount of life. Moreover, Gruber in another approach, by overlapping architecture and biology, has provided the standards of life in architecture from the perspective of biology. He considered nature as a good model for the criterion of life in architecture and believed that all criteria of life were not found in all forms of architecture. Furthermore, he believed that there is not any definition of the criterion of life which can be provided entirely in architecture, and life can only be invoked by activating the architecture and opening up new potentials in the creation of the environment [11]. Gruber is inspired by his ideas of a living organism and sees life as an apparent form. Similarly, Schulz sees this quality concerning nature and living forces in it and examines its impact on architecture. Besides them, Kevin Lynch [14] in the book "Theory of City" and Jacobs [15] have indirectly pointed to life-giving factors by discussing the factors of vitality in the environment. In these studies, although the concept of life has been investigated in various studies [16-17], such meanings in architecture are different and, it is necessary to investigate the concept of life in architectural space. On the other hand, studies in the field of architecture are either those that refer to life in the biological field [11] or have the concept of life in the context of events [9-10] at a context different from the architecture in Iran. Therefore, because of the undeniable quality of traditional Iranian homes, it is necessary, in line with these studies, to evaluate and explain the indicators of life in such homes.

2.1. Life

According to many scholars, this question is fundamentally philosophical and its full evaluation is not possible in scientific knowledge [8]. Therefore, we cannot consider a fixed definition for it and each person has had different definitions of life throughout history and in different branches of science [18]. From the perspective of Aristotle, the distinction between the objects and the living creatures is the existence of the "self-organization". He categorizes life into four different factors*: materials*, *efficiency, formal causes*, and *final causes* [8]. In the years 1596-1650, Decart disagreed with Aristotle's idea and argued that the living organism is the only very complicated machine that can be analyzed in all aspects of the purposefulness of life in modern physics. Kant, in the years 1723-1804, argued that the purpose of living organisms is different from artificial machines. Unlike a mechanical device, the living creature is its cause and effect. Based on his idea, finality is the main characteristic of the living forms which distinguishes them from dead objects. Even those who disagree with Kant believe that *teleology* is a sign of life (ibid, p. 2). Also, some definitions of life are derived from biological sciences and are in different degrees of the nature of animals [19]. In these definitions, the classic criteria for life have been discussed and have been derived from the living organism. These criteria are: 1) Organization of cells as living organ; 2) Metabolism to continue survival; 3) Homeostasis, setting the inner environment to maintain a steady state; 4) Growth, the increase in the size of all of the components of a living organism; 5) Irritability, responding to external stimuli like the retraction of a living creature when touched; 6) adaptability; 7) Reproduction [16, 20]. Schrödinger has explained that a lot of large-scale physical laws are influenced by small scale chaos. He calls this principle "Atrophy". This regular process is generated by the random motion of atoms or molecules. If the number of atoms decreases; the behavior of a system will be more random [5]. In Gestalt psychology, stern [17] believe that the phenomenon of the stimulus of life is a gestalt in which

psychological experience, is formed based on the automatic alliance of five components: motion, time, force, space, and direction. The forms of life do not inform us of the purpose and motive of the activity, but rather they provide us with information regarding the state of mind of the agent of the relevant action [21]. The following table, in summary, shows the various indicators of life- based on the above definitions Table 1.

Table 1 Summary of the indicators of life in different approaches (Source: author)

Approaches	**Life indicators**									**Theorists**
Biosciences and physical sciences	Organization	Metabolism	Homeostasis	Growth	Irritability	Adaptability	Reproduction	Entropy	Integrity	Campbell (2000) Schrodinger (1944) wright (2014)
Psychological-gestalt	Time	Direction		Destination		Motion		Energy Force		Di Cesare et al (2014) Stern (2010)
Philosophers perspective	Material	Teleology		Self-organization		Formal causes		Efficient		Aristo (322-384BC) Kant (1723-1804)

2.2. Life and architecture

Nowadays, many buildings are only responsive to the human physical dimension and in the long run, they have caused the modern man to think about a goal which is beyond the satisfaction of physical needs to authenticate their inner needs [10, 22-23]. Alexander, in his focus on the vital aspects of architecture, relies on the "essence of life"; the essence which is formed concerning events in space. According to him, the life-giving environment will induce a sense of vitality in humans and become compatible with their internal forces [12]. He introduced fifteen architectural features which lead to the formation and intensification of the living structure in architecture, see Table 2, (ibid., pp. 239-241). Similarly, if life emerges in a place, it will be stable. In this regard, the house is a mirror of the soul [10], and one of the attributes of the soul is its vivacity and immortality. According to Schultz, humans experience the presence in the place with the help of three components: memory, orientation, and identification. So, if one does not consider himself/herself to be the same as the soul of the place, he/she will never accept it and agree with it, and if the human-made place is not mentally (internally) oriented to the humans, the person will be confused and will be able to discover the place only in a tactless and incomplete way, and in fact, will be psychologically alien to the place. Moreover, prompting the memories has a fundamental function in the feeling of unification with the environment which is spontaneously expected from a place (ibid., p. 42). Besides, Schultz [10] focuses on the orderly and integrated nature of the universe as a factor in creating a sense of place. Since life sense in the environment, increases human liveliness [9], vitality can be considered as a sign of life. According to Queen Lynch, "vitality" on a large scale depends on five factors: meaning, proportionality, access, supervision and discretion, efficiency, and justice, and, on a small scale, he divides vitality into several parts: survival, (adequate amount of water, air, food, energy); safety (lack of environmental poisons and hazards); adaptation (coordination between the environment and human needs), the health and genetic diversity of living organisms which are used by humans, and finally the biological stability [6]. Similarly, Jane Jacobs, on a small scale, by pointing to the importance of vitality, discusses four main factors in the creation of vitality in the environment and focuses on 1) user variety; 2) physical diversity in terms of the shape and age of buildings; 3) diversity of the activity types; and 4) sufficient concentration of people regardless of the cause of their presence. According to her, diversity will lead to vitality. However, diversity is not enough and other elements are also effective in creating a lively environment. As an example, on a large scale, the social, cultural and environmental factors, which affect the space externally, are effective in this field [15] Table 2.

Given the fact that humans have different needs, the environmental capability also varies in responding to these dimensions, and it can be said that the criteria for life in architecture also have a wide range and can take different forms.

Table 2 Compilation of criteria for life in architecture from the viewpoint of theorists (Source: author)

Theorists - Criteria for Life in Architecture			
Alexander (2002)	Lynch (1981)	Jacobs (1961)	Schultz (2000)
Not-separateness-Simplicity and inner calm-The void-Echoes-Positive space-Good shape-Boundaries-Deep interlock and ambiguity-Alternating-Repetition-local symmetry-Grading-Strong centers-Contrast-Heterogeneity-Levels of scales	Genetic diversity-Stability-Biological-Compatibility- Safety-Survival-Efficiency-Supervision-Access-Proportion-factor of meaning	Diversity in-Building antiquity-Cultural factors-Social factors-users diversity-frequency function	Orientation-Identification-Memory-Alliance with the nature

3. RESEARCH DESIGN AND METHODS

The present study was a qualitative study and was conducted based on an inductive approach and a grounded theory method of research. In this method, the researcher seeks to allow the information from the interviews to determine the research data free from the beliefs and attitudes in order to develop a theory based on the collected data. The researchers were continuously present in the houses and were able to conduct semi-structured interviews with eighteen perceivers in the environment. In qualitative research, sample selection is based on the ability of the subject to provide data relevant to the research question. The researcher used the best available evidence to choose subjects who know enough can recall enough and can respond precisely to questions asked. Based on the nature of the research, the number of the required participants for the interview was in a way that it reached the level of information saturation and, in the following conversations, the participants did not provide the researchers with any new information [24]. In addition to the interview, we tried to increase the validity of the data by using triangulation the means of observations, personal experiences, and photographs, Interviews, Participant reviews, member check. During the interview process, in searching the life-giving components of traditional houses in Yazd, we asked the participants to: describe the life-giving factors in traditional houses along with their reasons, and mention the most life-giving spaces along with their reasons. Researchers applied systematic approaches to deducing their theories for the validity and reliability of qualitative analyses. Table 5 lists the four important strategies that this study has done to make a narrative.

Table 3 Strategies for increasing the reliability of research

Description strategy	**Strategy creswell (2007)**
Matching findings with the basics and the existing theories	By comparing the results obtained with other evidence
The researcher as participant observer "lives" with the subjects and spends time visiting the research site regularly over a long period of time range of about a year and a half	By first making a trust relationship with the subjects and staying in that setting for a long period of time
The researcher checked the data by extra interviews and	By interviewing the same informant on several occasions and making observations more than once and over time
In this study some reviewers participated for analyzing data and coding them	By Participant reviews of findings and peer examination

3.1. Participants

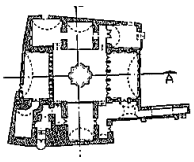
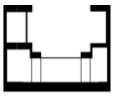
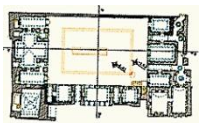
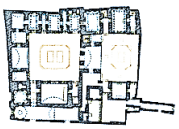
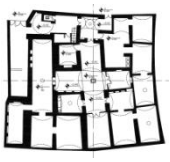
The researcher obtained eighteen participants for this study. They could experience the most of traditional houses of Yazd. So, the participants were the perceivers who were continuously present in this environment and were very familiar with the environment and the sense of presence in it. Seven of the participants were male and eleven of them were female and ranged in age from 28 to 35. Participants lived in the Yazd city, and broadly were, architecture students in the University of Yazd. The researcher conducted interviews with participants in the traditional houses of Yazd. In this research, the participants were selected using a bullet sampling method; So that the first person was selected purposefully from among the people who had the richest information. The previous interviewers introduced interviews with the next, so the information saturation continued.

3.2. The introduction of the case

In this study, based on the optimal sampling [25], the sampling was done by the selection of the cases which represented the investigated phenomenon to a large degree. In addition to desirability, the researcher followed the procedure of convenience sampling in the selection of the studied cases. In this regard, a sample of eight traditional houses in Yazd which were located on Imam Khomeini Street, Sahlaneb al-'Ali Yazd alley was selected as the major area of the study. It should be noted that it was tried to provide an appropriate case for each of the specified types based on fixed criteria: 1) they should have

spatial inclusion and a special quality; 2) the slightest changes should have been made in the houses; 3) they should be intact or should have been restored properly; 4) there should be the possibility of continuous presence and deep and systematic interview with the perceivers. Given that, one of the characteristics of houses in Yazd is the shape of their yard [26], it involves various types, and we tried to select the cases in a way that they included almost all of them (in Table 4, the selected types and cases have been introduced briefly). The selected houses are currently a part of the faculty of architecture and urban development of Yazd university and there is the possibility for conducting continuous and free interviews with the present perceivers in the environment due to the continuous presence of the users.

Table 4 Introduction of the studied houses as case examples

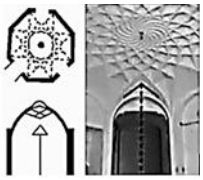
Selected case	Types
Rasoulian's house- interior exterior  	Interior-exterior 
Mortaz's house- Interior-exterior  	Four fronts Single yard 
Mehdi Rasoulian's house- four fronts, single yard  	Two Fronts 
Pirnia's house- four fronts, single yard  	Three Fronts 
Kerman's house- two fronts  	Garden pit 
Lari's house- garden pit, three fronts  	Four rows 
Torgi Kasamyai's house=garden pit  	mansion 
Mehrbanou's house- four rows  	Roofed yard 

Types of traditional houses in Yazd based on the shape of the yard

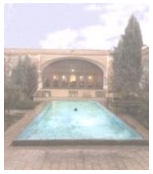
4. DATA ANALYSIS

After extracting and analyzing the data by the "Systematic Approach", theorization was done in three main steps. In the first step, (open coding), first, the interviews were reviewed and broken to determine their similarities and differences. Then, concepts were categorized according to their similarities (categorization) and were labeled in more general titles. After that, in the pivotal coding, the causal relationship between the categories was explained by the means of a paradigmatic model (model for example). Finally, by combining the selected data and integrating them, selective coding, final inference, and theorization were explained in the form of a conceptual model [27]. Table 5 includes four columns in which the "Basic concepts" explains a summary of interviewer's statement, the "criteria" section is a category of key phrases that are found in interviewer's statement, the "main categories" generally includes principal categories as indicators of all of the criteria; In the "examples" section, some case studies are referred to by the interviewers are provided.

Table 5 Data analysis

Examples	Main categories	Criteria	Basic concepts
 Diversity in elements and perception of time by light changes- Rasoulian's house	**R1: Perception of time**	Change of quality space	R1-1. Understanding the changing seasons in the flow of life provides a better understanding of the flow of time.
			R1-2. Understanding the time, due to changes in light and qualities, create a dynamic sense in place.
		Harmony with nature	R1-3 .The central courtyard shows weather changes and various natural qualities over the course of time.
			R1-4. The change in the composition of trees during the seasons and the flow of time causes the variation of space and somehow increases the vitality and the positive passion.
		Space dynamism	R1-5. The movements of shadow and light on the walls enhance the quality of the environment over time.
	R2: Diversity	Variation of form	R2-1. Light with a variety of windows make the room looks great.
			R2-2. The variety of size and type of spaces result in different activities and increase vitality.
		Variation of use	R2-4. The variety of the shape of rooms makes them more useful and leads to the experience of different situations.
			R2-5. The change in the quality of space with various light effects prevents the monotony of the space.
		Diversity of activity	R2-6. The presence of variety in components causes less boredom in space.
 Transparency of space- Rasoulian's house	**R3: Transparency of space**	Decrease of enclosure	R3-1. The contradiction between the tight space and the open space makes the Transparency of space to be more vitality.
			R3-2. The uprightness of the ceilings reduces the enclosure of space and makes it more pleasant.
		Increase of the viewing depth	R3-3. Spatial interference and sequential viewing connect the spaces and increase the depth of the viewing.
			R3-4. The white color of the room makes it more attractive and more spacious.
			R3-5. The large space has a greater accumulation capacity and provides a better environment for mobility and activity.
		Unity with the open space	R3-6. The visual scope of some spaces and the integration with open space has more energy.
			R3-7. The extensiveness of space in the continuity with open space and the expansion of space gives a sense of dynamism.
 familiar elements in Uprightness of the ceiling- Mortaz's house	**R4: Mental memory**	Reminding memories Mentally familiar elements	R4-1. It is like that the bricks are alive, have a sense of familiarity, and remind memories.
			R4-2. The smell of soil makes the space refreshing and reminds us of a pleasant thing.
		Personal tastes	R4-3. The details and organization of the houses are familiar to me and I can adapt to them and be able to get friendlier with the environment.
			R4-4. The proportions and the fineness of the spaces make the environment more intimate and familiar to me.
		Sense of belonging	R4-5. The niches and the possibility of putting personal belongings on them make you feel that you belong to space.
			R4-6. The courtyard, the garden, and its pond beside the sky make me feel that I am at home and relax me.
 Convergence of space -Mortaz's house	**R5: Convergence of space**	Unification centralization	R5-1. The emphasis on the centrality of space and the human proportion increases intimacy and creates concentration.
			R5-2. Convergent and unifying geometry results in mental balance and orientation.
		Orientation to space	R5-3. The warm color of the colored glasses beside the white color makes the life more intimate.
			R5-4. Introspection and integrity of the components around the yard and a point enhance the energy of space.
		Determination of space	R5-5. The unity of components around the central courtyard defines the boundary of space and is a kind of organization.
 Hidden order in plan- Rasoulian's house	**R6: Hidden order**	Rhythm and proportions	R6-1. The order which is the result of rhythm and proportions makes the space more coherent and improves concentration.
			R6-2. The physical hierarchy organizes the elements and is relaxing.
		Presence of geometry	R6-3. The hidden order eliminates the confusion and creates focus sense.
			R6-4. The hidden geometry of the plan regulates the spaces which are not tedious and is the agent of the continuation of the new physical components in time.

Examples	Main categories	Criteria	Basic concepts
		Organization of components	
 The platform beside the entrance	**R7: Sociability space**	Social interactions	R7-1. The sociability of the spaces in houses creates a dynamic feeling. R7-2. The platforms of the entrance door and the ability to interact with others are life-giving. R7-3. I believe that communal places are alive since living people interact with each other in these places and they increase intimacy in place and moment.
		Communal spaces	R7-4. The possibility of various types of communal ceremonies can be a source of vitality.
 The sense of dynamism and motion	**R8: Dynamic space**	Creating mobility	R8-1. The placement of spaces is such that the movement in the flow of life becomes more pronounced. R8-2. The layout of the spaces and the presence of the yard in the center increase movement and vitality
		space flexibility	R8-3. The use of spaces encourages residents' activities and increases dynamism. R8-4. The rooms that allow free passage to each other prevent people from sitting in one place and motivate mobility and activity.
		Activating users	R8-5. Flexibility in spaces has created mobility and activity. R8-6. Mobility in space results in harmony with the flow of time and activity.
 Center yard Mortaz's house	**R9: Nature R9-1: Tree**	Living creature	R9-1-1. The tree in the yard as a natural element reflects life. R9-1-2. Every year understanding the growth of the living tree reminds the process of creation and life.
		Combination of trees	R9-1-3. The tree causes dynamism and life, and because it is familiar, it makes the space more intimate. R9-1-4. The sequential change in the composition of trees diversifies the flow of life during the seasons.
	R9: Nature R9-2: Open space	Presence in the yard	R9-2-1. A yard in the center of the house as a joint of different spaces is a factor that is important for the continuous presence in open spaces and a greater understanding of nature.
		Open air	R9-2-2. The security of the yard and its centrality has made the yard the main place for living.
		Perception of nature	R9-2-3. The open space and the fresh air of the yard help us to enjoy life.
 Natural light and sky	**R9: Nature R9-3: Natural light**	Shadow and light	R9-3-1. Light is vitality things that give life. R9-3-2. The effect of shadow and light on the bodies gives rise to various qualities of space over time.
		Reflection of light	R9-3-4. Luminous rooms seem to be more entertaining and motivate people to do things. R9-3-5. The reflection of light from the water pond on the bodies has given a delicacy and a special spirit to space.
		Manifestation of light	R9-3-6. The manifestation of light in the house creates a balance between the vacuum and the material that is life-giving. R9-3-7. The emphasis on the light of the end of the dark path of the corridors gives you a feeling of relaxation.
 Living things Mehdi R's house	**R9: Nature R9-4: Living things**	Natural elements	R9-4-1. The fish in the pond and the sparrows around it increase the livelihood of water. R9-4-2. The pleasant sound of birds in these houses is delicious and life-giving. R9-4-3. The smell of soil after a rainfall makes a feeling of life.
		Living organisms	
		Living materials	
		Living force	R9-4-5. The dry materials and the bricks in the bodies of the buildings are somehow alive and life-giving.

Examples	Main categories	Criteria	Basic concepts
 View of sky Kasamyai's house	**R9: Nature R9-5: Sky**	Framing the sky	R9-5-1. The one-dimensional effect of the sky on the corridors makes the sky more understandable.
		Presence of the sky	R9-5-2. The presence of the sky in various views has resulted in the pleasantness and life of the space. R9-5-3. The effect of the sky on a variety of views through the vaults has a sense of liberation and delight. R9-5-4. The sky and its effect on the house are relaxing.
 Vitality by water Rasoulian's house	**R9: Nature R9-6: Water**	Water Transparency Water reflection	R9-6-1. The images of the sky and trees in the water pond make the environment pleasant.
			R9-6-2. The transparency and reflection of water have made the space more dynamic.
		Freshness in water	R9-6-3. The water of the pond has a life-giving effect on the space and is a reminder of good memories. R9-6-4. The reflection rage of the building in water reduces the rigidity of the environment and makes the space more pleasant. R9-6-5. The ability to continuously connect with the quality of water gives you a sense of vitality.

Selective coding is the main stage of the theory, which is based on the results of the previous steps. This codification relates the axiomatic category systematically to other categories, and clarifies those relationships within the framework of a narrative; In Analytical Model No. 1, the relationship between concepts and categories explained in the table above is shown in a systematic and graphical model.

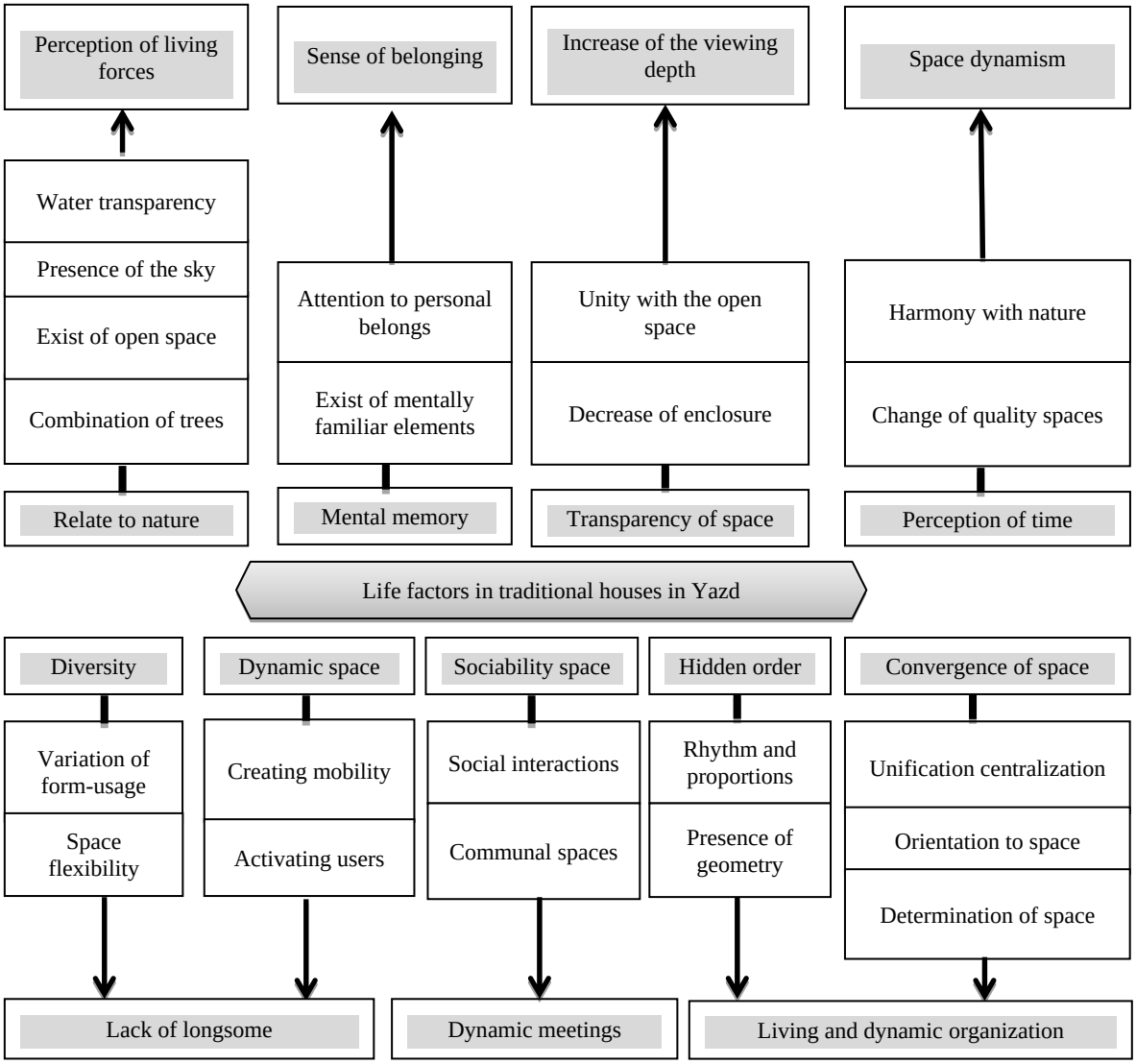


Fig. 1 The graphical model of selective coding

5. DISCUSSION AND GENERATED HYPOTHESES

The results of the comparative comparison of data analysis with the theoretical foundations show that the criteria for life in traditional houses in Yazd are among the factors that, with different titles, have been mentioned in various research studies and theories.

Mental memories: The meaning of this factor is something that remains the familiarity memories and creates a sense of belonging in the human mind;

R4-3: "…I think that the details and organization of the houses are familiar to me and I can adapt to them and be able to get friendlier with the environment."

According to Bashar, Iranian homes with many gardens, courtyards, cozy corners of the interior, are the perfect place to keep an eye out for the environment that is full of personal memories [28].

In this subject, Bennett [29] focused on nostalgia and 'an ontological belonging' of places and the importance of historic and material connections in belonging to place and shows how they contribute to belonging in the place as a moral way of being-in-the-world. Also, Schultz [10]identified that attention to Orientation & memory, the ability to orient correctly and to have empathy for the environment, is important for creating a place and Getting used to the environment.

Perception of time: This word is a kind of time perception in place that can be a factor for a quality life in architecture;

R1- 2: "…I feel that the passage of time in these homes and Understanding time, due to changes in light and qualities, create a dynamic sense in place, in addition to this, The position of the courtyard spaces is such that a family can sit in it and watch the view of the yard and sleep in the spring and summer nights or look at the sky at different angles. Therefore, the passage of time and the different situations of time are much more felt."

According to this, Hawking [30] focused on the importance of space-time as a necessary factor in place and believed that each observer has his measure of time, as recorded by a clock carried with him, and that identical clocks carried by different observers would not necessarily agree.

Focus on nature: Findings show that nature - like water, tree, sky, light, open space…- is an important factor for life quality (Table 6: R9-1).

R9-1-1: "… I like natural things such as tree because the tree in the yard as a natural element reflects life." On the other hand, R9-2-1: "… A yard in the center of the house as a joint of different spaces is a factor which is important for the continuous presence in open spaces and a greater understanding of nature and fresh air."

Gardens, courtyards, vaults, dock, gates and other forms of general symbolism have increased the ability to communicate with nature. Each part of the traditional home is a powerful center that is intensified and combined with the natural forces. In the central courtyard of traditional houses, it feels like all the layers around the courtyard and its components are organized to enhance communication with the middle natural space [1].

According to this, one of the most researched yet often overlooked benefits of the availability of natural environments for humans is stress reduction, restoration, and experienced personal connection with a coherent and meaningful world [31]. In contrast, Coss [32] and Ulrich [33] identified that exposure to environments lacking natural elements can produce anxiety, anger, frustration, and sadness [34]. In general, exposure to nature enhances the sense of attachment, social life, mental and physical health, quality of life and the occurrence of activities and events that enhance wellbeing (Ibid). Also, Lighting is ultimately the energy that let us according to studies:

R9-3-1:"… One of the things that increase life quality in these houses is light, you can find it in different ways and this factor is very important because Light is vitality things and gives life."

In traditional houses, lighting has not been optimal. By creating contrast in lighting, they create a pleasant feeling for the residents. The bright courtyard and the arrangement of semi-open and closed spaces around it helped control the amount of light entering the spaces [35].

The majority of humans prefer a daylight environment because sunlight consists of a balanced spectrum of color, with its energy peaking slightly in the blue-green area of the visible spectrum [36].

Transparency of space: The quality of transparency for passaging the light and accessing to open or another space was very fantastic. The overlaps of open space and close spaces increase transparency and create a life quality in place.

R3-1:"… Many open arches and large windows in some places interact with spaces so that the spaces appear larger and larger. The contradiction between the tight space and the open space makes the Transparency of space to be more vitality."

Traditional Iranian architectural spaces have to be constantly expanded to eliminate and freeze constraints; extensions of light or from the perspective of the landscape. In traditional architecture, space transformed from stagnation and stagnation into dynamism and floating [37]. Nader Ardalan [1] believes that Iranian architects have tried to pass human beings not through solid mass but an unobstructed space so that they did not create any kind of fault or barrier in the way of human passage.

According to Siegfried Giedion [38], "Transparency is a fundamental quality of artistic production that can be traced back to the origins of art and architecture". In addition, Adrian Forty (2004) identified transparency as "key twentieth-century architectural term while at the same time acknowledging the tendency to discuss transparency in its material sense rather than its theoretical metaphoric ones" [39]. Gruber [11] in a similar meaning said that extensibility, a kind of spreading of the space or a living organism, is a factor of life.

Space Convergence: The meaning of convergence and centralized space is as a means of unifying discrete and continuous elements in architecture place. According to finds, as life quality, this item creates mental balance and orientation.

R5-2:"… Convergent and unifying geometry results in

mental balance and orientation. The centrality of the whole of the spaces of these houses (Mortaz house for example) is a good feeling. There is a kind of relaxation and staying at home that prevents turmoil. For example, if you look at the water pond, everything will be united in it and it will increase the space by relaxing.

Hidden order: According to findings, in hidden order, architects can control how parts of a building relate to each other and Geometry is the fundamental element of forms and order. The role of geometry in an increase-hidden order is very important. Without extra unity, Hidden order in space can create calmness and focus sense.

R6-3:"… Despite the large variety of these parts and decorations, there is a secret order that coherent with space. The hidden order eliminates the confusion and creates focus sense; for example, you see many different spaces with a different design in these houses, however, their plans have a strong order that is not clear in the observer's sight."

In traditional Iranian architecture and urbanization, the order is one of the key concepts in the formation of spatial factors. An Ordinance in this definition means the broader meaning of a state or quality that is arranged in a system that, while creating diversity, prevents disturbance and disturbance [40].

Sociability space: The social spaces are where many people participate and connect; they provide an opportunity for speaking and sharing their thoughts to have belonging sense. According to findings, a social ceremony improves life quality and architecture can provide this.

R7-3: "…I believe that communal places are alive since living people interact with each other in these places and they increase intimacy in place and moment; for example in the house of Larry, the suitable size of spaces and Attention to different personal territories by creating a space in the middle and four spaces on its sides (in the form of a full cross space), makes different functions at different times (privacy, multiplayer, intimate, and friendly, up to a big party and various ceremonies like weddings); and everyone in each of these functions can get their meaning from space."

The result of these interactions and experiences among people will be communal identification, self-esteem, communal skill improvement, and social participation. Social sustainability in a city or a quarter is conditioned upon the existence of happiness and quality of life, providing health and security,the tendency for social participation [41]

Dynamic space: This quality of a place is about a movement that creates a Motility and vitality.

R8-2: "…if you want to go to other spaces in these houses (Rasolyan house for example), you must experience different quality by moving among them (different courtyards, types of communication spaces, diverse corridors alongside open spaces) and the layout of the spaces and the presence of the yard in the center increase movement and vitality."

This quality can create by many different strategic, for example, the form of space or diversity in close and open space…; in this regard, Frederick [42] stated that geometric shapes have inherent dynamic qualities that influence one's perception and experience of the built environment.

Diversity: Findings show that Diversity in space can create a dynamic and non-boring place. Of course, this diversity is made with many factors such as different size, form, users….;

R2-2: "… there are many diverse qualities and elements in the different parts of these houses and you can discover new things for watching (Seeing various lighting in spaces, ceiling decorations, variations in the design of basement spaces to roof spaces, ...); the variety of size and type of spaces result in different activities and increase vitality, in the other word, This diversity in the quality of the spaces (such as different lighting, decorating, open and close space, different proportions) creates different uses of space; for example, If at any one time a person in space is in an unfavorable state of health, he can be trained in lower-quality or private spaces with human proportions and rest with himself.."

In connection with the diversity of features of the space organization of traditional houses the following are generally referred to as: the presence of three types of open spaces, closed and covered at home, the presence of specific ratios in each building for spaces, the existence of a diverse spectrum of space from the realm Complete private to general at home, flexibility of space for lifestyle dynamics, non-overcoming of objects on the spatial organization of the house, and relation with water and vegetation [37].

6. CONCLUSION

Based on what was presented in the process of this paper, life has been considered has been defined in various ways. Some of these definitions have been raised in the field of empirical sciences and some in the field of philosophy and psychology. The result of the overlap was the achievement of fifteen general criteria for the concept of life. The findings of this study showed that most of the criteria derived from research findings, despite the difference in the ranking of components of life, have desirable compatibility with the theoretical findings of the research. The main reasons for the difference in rankings, which have been determined by the study of the literature of the subject around the issue of life in architecture, are the attention to the specific requirements of a different case and the special needs of users in such spaces. According to research findings, most of the criteria for life in traditional houses in Yazd, which are directly and indirectly related to the criteria derived from theoretical foundations, include:

1) Alliance with nature (by highlighting natural elements such as sky, tree, water, light, open space and living things); 2) transparency of spaces and infiniteness of space; 3) Emphasis on hidden order; 4) Convergence of spaces and achieving internal coherence for individual concentration; 5) Sociality space, The possibility of collective interactions and socialization; 6) Dynamism,

The improvement of mobility for activating users and preventing boredom; 7) Diversity, The presence of the variety of the components, the shape of the rooms, the dimensions and the sizes, and ...;8) perception of time, The presence of changes in time and lack of monotony; 9) Mental memory, Having mentally familiar elements and getting accustomed to the environment.

Accordingly, the present study is the basis for other questions, and anything which was obtained in this article is only an introduction for starting further research. Therefore, in order to contribute to increasing the credibility and improving the results of this study, the writer makes some recommendations for the interested researchers: given that the research findings are limited to a specific location, it is recommended that the interested researchers, by following the discussed order in this study, should evaluate and measure the obtained qualitative order in this study in order to add to its breadth and credibility.

CONFLICT OF INTEREST

The authors declare that there are no conflicts of interest regarding the publication of this manuscript.

NOTE

1. This article is an excerpt from the PhD dissertation of the first author on Islamic architecture and, it is under the supervision of the second author at Tabriz Islamic Art University, Iran.

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